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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,785

09/04/2003

David Sekovski

D/A3096

5508

25453

7590

03/28/2005

PATENT DOCUMENTATION CENTER

XEROX CORPORATION

100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR
ROCHESTER, NY 14644

EXAMINER

ROYER, WILLIAM J

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/654,785

Applicant(s)

SEKOVSKI ET AL.

Examiner

William J. Royer

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2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-10 and 12-20 is/are rejected.
- 7) ☒ Claim(s) 6 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09042003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Drawings

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

In Figure 4, reference numerals "504" and "506" are shown, however, neither reference numeral appears to be identified in the specification.

On page 1, line 17, change "from the" to --- from ---.

On page 1, line 18, change "area to" to --- surface to ---.

On page 1, line 19, change "area" to --- insulating surface ---.

On page 1, line 20, after "as" insert --- a ---.

On page 2, line 11, before "plate" insert --- charge ---.

On page 2, line 12, change "photoconductor" to --- photoreceptor ---.

On page 3, line 9, before "device" insert --- charging ---.

On page 3, line 20, after "grid" insert --- member ---.

On page 3, line 24, change "scorotron grid" to --- grid member ---.

On page 4, line 11, after "second" insert --- scorotron ---.

On page 4, line 27, delete --- having a ---.

On page 7, line 23, change "to the" to --- to a ---.

On page 7, line 25, after "grid" insert --- 400 ---.

On page 7, lines 26 and 27, delete --- grid ---.

On page 8, line 3, after "arrays" insert --- 404, 406 ---.

On page 8, line 23, change "2" to --- 3 ---.

On page 8, line 24, change "3" to --- 4 ---.

On page 9, line 19, change "3" to --- 4 ---.

On page 9, line 25, change "4" to --- 5 ---.

Appropriate correction is required.

Claim Objections

Claims 1, 6, 8-11, 13, 14, 16, 19 and 20C are objected to because of the following informalities:

Claim 1, line 5, after "said" insert --- at least one ---.

Claim 6, lines 7 and 8, before "feature" insert --- grid ---.

Claim 8, line 2, before "corona" insert --- at least one ---.

Claim 8, line 2, change "wherein a" to --- wherein said ---.

Claim 8, line 3, change "element comprises" to --- elements comprise ---.

Claim 9, line 1, before "corona" insert --- at least one ---.

Claim 10, line 1, change "8" to --- 9 ---.

Claim 10, line 1, change "the plurality of" to --- said ---.

Claim 11, line 1, change "8" to --- 9 ---.

Claim 13, line 1, before "corona" insert --- at least one ---.

Claim 14, line 5, before "corona" insert --- at least one ---.

Claim 16, line 6, before "corona producing" insert --- at least one ---.

Claim 19, line 1, delete --- the charge producing element ---.

Claim 19, line 2, delete --- comprises ---.

Claim 19, line 2, after "enclosure" insert --- is ---.

Claim 19, line 2, before "corona" insert --- at least one ---.

Claim 19, line 3, change "a grid element comprises" to --- said grid elements
comprise ---.

Claim 20, line 1, delete --- plurality of ---.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 5, 8, 12, 14-16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hattori. Referring to Figures 5 and 6, a corona charging device (i.e., charging system) for charging a drum PC (i.e., charge retentive surface; photoreceptor) having a width dimension is shown. The corona charging device includes: corona wires 1, 2 (i.e., at least one corona producing element) spaced from the drum and arranged generally along the width dimension; and grid electrode 30 which includes two grid electrode sections 3A, 3B (i.e., grid elements) interposed between the corona wires and the drum, wherein the grid electrode sections are arranged generally parallel to each other along the width direction and comprise differentiated grid feature patterns having a geometric shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 3, 7, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori in view of Nakagami et al.

Hattori discloses all the features claimed by the applicant as discussed above in the 35 USC 102(b) rejection except for the geometric shape being hexagonal and the use of a pin electrode array corona producing device instead of corona wires.

Nakagami et al disclose a charging device 1 in Figure 2 that includes a discharge electrode 11 (i.e., pin array corona producing device) and a grid electrode 15. Further, it is disclosed that a hexagonal grid pattern or other various grid patterns may provided on the grid electrode as shown in Figures 19-23.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the charging device of Hattori could use both the discharge electrode and the hexagonal grid pattern as disclosed by Nakagami et al because it well known in the art to use a pin array instead of corona wires in a charging device since both perform an equivalent function, i.e., the charging of a drum while the use of a hexagonal grid pattern or any other geometric shape instead of the parallelogram pattern used by Hattori is an obvious design modification that is selected based upon the type of charge pattern that is needed to be generated by the charging device.

Claims 9, 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori.

Hattori discloses all the features claimed by applicant as discussed above in the 35 U.S.C. 102(b) rejection except for providing the corona wires in separate frame enclosures.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the two corona wires and the two grid sections of Hattori could be provided in separate frame enclosures because the mere fact that a given structure is integral does not preclude it from consisting of various elements. See Nerwin v. Erlichman, 168 USPQ 177, 179 (PTO Bd. Of Int. 1969) . Further, in In re Larson, 144 USPQ 347 (CCPA 1965), it was stated that the use of a one piece construction instead of a multiple piece construction would be merely a matter of obvious engineering choice. See also In re Fridolph, 50 CCPA 745, 89 F.2d 509, 135 USPQ 319. Consequently, it would also have been obvious that a multiple piece construction instead of one piece construction would be a matter of obvious engineering choice.

Allowable Subject Matter

Claims 6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relevant Prior Art

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hara et al '578 disclose a charger that includes a grid member having first and second mesh portions having different mesh sizes.

Hara et al '032 disclose a charger that includes a grid member having varying apertures.

Takafuji et al disclose a corona discharge device that includes a control electrode.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Royer whose telephone number is (571) 272-2140. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William J. Royer
Primary Examiner
Art Unit 2852

Wjr
March 16, 2005